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EXAMINER

STRANGE, AARON N

ART UNIT	PAPER NUMBER
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2153

MAIL DATE	DELIVERY MODE
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11/27/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

09/774,407

Applicant(s)

FLANAGIN, STEPHEN D.

Examiner

Aaron Strange

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 11 September 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4, 11-14 and 17-40 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 11-14 and 17-40 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Arguments

1. Applicant's arguments filed 9/11/07 have been fully considered but they are not persuasive.
2. With regard to claim 1, and Applicant's assertion that West does not disclose "an ability to dynamically make routing decisions selecting between different connectivities at the time data is received based on what connectivities are available" (Remarks 18), the Examiner respectfully disagrees. West discloses that communications are routed over the wired connection whenever it is available, even if the wireless connection is also available (Col 3, Lines 49-54). This is done by telling the carrier that the "signal strength" is very high over the wired connection, forcing it to be selected over any available wireless connections.
3. With regard to claim 40, and Applicant's assertion that the cited art fails to disclose "receiving an express indication from the wireless device over a wireless network, the indication indicating that the wireless device has lost a prior connection to a wired network, the connection to the wired network having been established by coupling the wireless device to a docking station that was connected to the wired network" (Remarks, 19), the Examiner respectfully disagrees. West clearly discloses that the device loses connectivity with wired network when undocked, and sends an

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express indication when the connectivity switches from wired to wireless (Col 3, Lines 23-54; Col 4, Lines 45-59).

Claim Objections

4. Claims 1 and 12 are objected to because of the following informalities:

There appears to be a typographical error "the lower capacity second communication channel" in lines 51-52 of claim 1 and lines 49-49 of claim 12. This has been interpreted as the lower capacity *first* communication channel.

There appears to be a typographical error "relative toe the" in line 9 of claim 12.

Appropriate correction is required.

Claim Rejections - 35 USC § 112

5. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

6. Claims 1-4 and 11-40 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

7. Claims 1 (ll. 46-47) and 12 (ll. 44-45) recite the limitation "the subsequent indication". There is insufficient antecedent basis for this limitation in the claim. For the

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purpose of applying prior art, this limitation has been interpreted as referring to the "indication from the wireless device", previously mentioned in each claim.

8. All claims not individually addressed are rejected by virtue of their dependency from the above claims.

Claim Rejections - 35 USC § 103

9. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

10. Claims 1-3, 8, 10-14, 17-20, 21-27, 29 and 31-39 are rejected under 35 U.S.C. 103(a) as being unpatentable over West et al. (US 6,449,722) in view of Fox et al. (US 6,654,786) in further view of Tennison et al. (US 6,522,884).

11. With regard to claim 1, West discloses, in a system (Fig 1) including a wireless device (Fig 1, 10), a network device (docking station) (Col 3, Lines 23-26), and a carrier (Fig 1, 20), the wireless device configured to communicate with the carrier over a first communication channel (network specific wireless channel) (at least Col 2, Lines 40-49) and configured to connect to the network device (at least Col 3, Lines 23-26), the network device configured to communicate with the notification server over a second

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communication channel comprising the internet (LAN connection)(at least Col 3, Lines 26-29), the first communication channel having lower capacity relative to the second communication channel (LAN connection has higher capacity), a method comprising performing:

an act of communicating with the wireless device over the lower capacity first communication channel, the communication indicative of data for the wireless device being routable over the lower capacity first communication channel (device communicated with carrier over wireless connection)(at least Col 2, Lines 35-49);

an act of receiving subsequent communication through the network device, the subsequent communication notifying the carrier that the wireless device has access to the higher capacity second communication channel (carrier is notified that the device has switched to the second connection), the subsequent communication including a network device address for the network device to indicate to the carrier that data for the wireless device is also routable to the network device address over the higher capacity second communication channel (network address of network device is inherently included in the communication, since it is required to send messages to the wireless device via the network device) (at least Col 3, Lines 23-54);

an act of automatically making a first routing determination that data is to be routed over the high capacity second communication channel based on the availability of the higher capacity second communication channel, even though the lower capacity channel also remains available (data is always routed over the internet if the device is

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connected to the docking station, even if wireless connectivity is available) (at least Col 3, Lines 23-54, esp. Lines 40-43);

an act of routing the data over the higher capacity second communication channel for delivery to the wireless device in response to the first routing determination (data is sent over the internet whenever the device is docked)(at least Col 3, Lines 23-54, esp. Lines 40-43);

an act of receiving an express indication from the wireless device over the lower capacity first communication channel (Col 4, Lines 45-59, esp. Lines 57-58), the express indication indicating to the carrier that:

the connection between the wireless device and the carrier over the higher capacity second communication channel has been lost (connectivity change from wired connectivity back to wireless connectivity)(Col 4, Lines 45-49); and

further data sent to the wireless device is to revert to being routed over the lower capacity first communication channel (when connectivity has switched back to wireless, all further communication will occur over that channel)

an act of automatically making a second routing determination that data is to be routed over the lower capacity first communication channel based on the loss of connection to the higher capacity second communication channel (data is always routed over the internet if the device is connected to the docking station, otherwise it is sent over the wireless link) (at least Col 3, Lines 23-54, esp. Lines 40-43);

an act of routing the data over the lower capacity first communication channel for delivery to the wireless device in response to the second routing determination (data is

sent over the wireless link whenever the device is not docked)(at least Col 3, Lines 23-54).

West fails to specifically disclose that the data transmitted to the wireless device is a notification from a notification server, indicating that a data object of interest has changed, or that determining an appropriate communication channel is based on the size of the notification.

Fox discloses a similar system for communicating between a wireless device and a server using multiple channels. Fox discloses routing notifications from a notification server to the wireless devices over the appropriate network (Col 6, Lines 64-66; Col 8, Lines 1-10; Col 13, Lines 39-47). This would have been an advantageous addition to the system disclosed by West since it would have allowed the wireless devices to receive notification when a data object of interest, such as a web server subscriptions (Fox, Col 5, Lines 40-65) has changed.

Tennison discloses a similar system for routing messages between a server and a wireless device. Tennison teaches selecting an appropriate communication channel for each message to be transmitted based at least in part on the size of the message (at least Col 3, Lines 39-47). This would have been an advantageous addition to the system disclosed by West since it would have allowed a particular message to be sent across the communication channel most preferable to the user(Tennison, Col 4, Lines 26-30). For example, the user may wish to have large messages transmitted only via the higher capacity channel in an effort to save transmission costs.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to route notifications from the carrier to the wireless devices to notify them of changes to items of interest such as web pages as well as select a preferred communication channel based on the size of the notification, since it would have permitted the user to control which messages are sent over the low capacity channel, reducing transmission costs.

12. With regard to claim 2, West further discloses that the wireless device communicates with the network device (desktop) over a communication link (docking station), and wherein the wireless device automatically connects with the network device (at least Col 3, Lines 23-26).

13. With regard to claim 3, West further discloses that the network device is one of a desktop computer (at least Col 3, Lines 23-26), a blue tooth enabled LAN, and a kiosk.

14. Claims 11-14 and 17-20 are rejected under the same rationale as claims 1-3 since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

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15. With regards to claims 21, 25 and 26, West further discloses a proxy server (virtual base station controller) that re-routes the notifications over the appropriate channel (at least Col 3, Line 65 to Col 4, Line 6).

16. With regard to claim 23 and 36, West further discloses that the act of providing the wireless device with access to the higher capacity second communication channel further comprises an act of connecting the wireless device at a docking station, the docking station having a communication link with the network device that provides the wireless device with access to the higher capacity second communication channel through the network device (at least Col 3, Lines 23-26).

17. Claims 22, 24, 27, 29, 31-33 and 35 are rejected under the same rationale as claims 1-3 and 11, since they recite substantially identical subject matter. Any differences between the claims do not result in patentably distinct claims and all of the limitations are taught by the above cited art.

18. With regard to claim 37, West further discloses that it is more costly to use the lower capacity first communication channel than the higher capacity second communication channel (at least Col 2, Lines 63-66).

19. With regard to claim 38, West further discloses that the lower capacity first communication channel is substantially always available for notifications to be sent to

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the wireless device (wireless connections are available whenever the wireless device is in the coverage area) (at least Col 1, Lines 11-26 and Col 2, Lines 35-43).

20. With regard to claim 39, West further discloses that the notification server is external to the infrastructure of the lower capacity first communication channel and external to the infrastructure higher capacity second communication channel (carrier is external to the wireless device -> virtual base station controller connection) (Fig 1) and wherein the notification server is further configured to send application data notifications to the wireless device over the infrastructure of the lower capacity first communication channel and the infrastructure of the higher capacity second communication channel when the notification server is notified how to communicate with the wireless device over the infrastructure of the lower capacity first communication channel or over the infrastructure of the higher capacity second communication channel (the carrier is notified of the connectivity of the wireless device)(at least Col 3, 40-43).

21. With regard to claim 40, West further discloses that the act of receiving an express indication from the wireless device over the lower capacity first communication channel comprises an act of receiving an express indication from the wireless device over a wireless network, the indication indicating that the wireless device has lost a prior connection to a wired network, the connection to the wired network having been established by coupling the wireless device to a docking station that was connected to

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the wired network (device loses connectivity with wired network when undocked)(Col 3, Lines 23-54; Col 4, Lines 45-59).

22. Claims 4 and 28 are rejected under 35 U.S.C. 103(a) as being unpatentable over West et al. (US 6,449,722) in view of Fox et al. (US 6,654,786) in further view of Tennison et al. (US 6,522,884) in further view of Official Notice.

23. With regard to claims 4 and 28, while the system disclosed by West and Fox shows substantial features of the claimed invention (discussed above), it fails to specifically disclose that the communication link between the wireless device and the network device is one of a serial link, a USB link, a wireless Bluetooth link, and an infrared link.

The Examiner takes Official Notice that it was old and well known in the art at the time the invention was made to connect a wireless device to a desktop computer using a serial, USB, Bluetooth, or infrared link. Each of these connection types were well known means of connecting a wireless device to a network device such as a desktop computer and selection of a particular one would have merely been a matter of personal preference to the system designer.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to allow docking of the wireless device using any known connection protocol in order to provide the devices with access to the Internet via wired networks.

24. Claims 30 and 34 rejected under 35 U.S.C. 103(a) as being unpatentable over West et al. (US 6,449,722) in view of Fox et al. (US 6,654,786) in further view of Tennison et al. (US 6,522,884) in further view of Hibbard (US 2001/0056503).

25. With regard to claims 30 and 34, while the system disclosed by West and Fox shows substantial features of the claimed invention (discussed above), it fails to disclose determining that the wireless device no longer has access to the high capacity channel if the notification server does not receive an acknowledgement to a notification within a predetermined period.

Hibbard teaches determining that a connection has failed if an acknowledgment has not been received within a predetermined time period, and subsequently connecting on a secondary connection (§26). This would have been an advantageous addition to the system disclosed by West and Fox since it would have allowed the server to determine if a connection has failed without waiting for information from the wireless device.

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to determine that the high capacity channel is no longer available if the notification server does not receive an acknowledgement to a notification within a predetermined period.

Conclusion

26. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.


27. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Aaron Strange whose telephone number is 571-272-3959. The examiner can normally be reached on M-F 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glen Burgess can be reached on 571-272-3949. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

AS
11/16/07


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